0200

#2

OIPE

RAW SEQUENCE LISTING DATE: 07/05/2000
PATENT APPLICATION: US/09/599,760 TIME: 18:57:37

ENTERED

Input Set : A:\464428_1.txt
Output Set: N:\CRF3\07052000\I599760.raw

<110> APPLICANT: Newell, Martha K.
<120> TITLE OF INVENTION: Methods and Products for Manipulating
Uncoupling Protein Expression in the Plasma Membrane
<130> FILE REFERENCE: I0277/7009
C--> <140> CURRENT APPLICATION NUMBER: US/09/599,760
C--> <141> CURRENT FILING DATE: 2000-06-22
<150> PRIOR APPLICATION NUMBER: US 60/140,574
<151> PRIOR FILING DATE: 1999-06-23
<160> NUMBER OF SEQ ID NOS: 6
<170> SOFTWARE: FastSEQ for Windows Version 3.0
<210> SEQ ID NO: 1
<211> LENGTH: 924
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<400> SEQUENCE: 1

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ggaatagcgg cgtgcttggc ggacgtgatc accttcccgc tggacacggc caaagtccgg 120
ctccaggtcc aaggtgaatg cccgacgtcc agtgttatta ggtataaagg tgtcctggga 180
acaatcaccg ctgtggtaaa aacagaaggg cggatgaaac tctacagcgg gctgcctgcg 240
gggcttcagc ggcaaatcag ctccgcctct ctcaggatcg gcctctacga cacggtccag 300
gagttcctca ccgcagggaa agaaacagca cctagtttag gaagcaagat tttagctggt 360
ctaacgactg gaggagtggc agtattcatt gggcaaccca cagaggtcgt gaaagtcaga 420
cttcaagcac agagccatct ccacggaatc aaacctcgct acacggggac ttataatgcg 480
tacagaataa tagcaacaac cgaaggcttg acgggtcttt ggaaagggac tactcccaat 540
ctgatgagaa gtgtcatcat caattgtaca gagctagtaa catatgatct aatgaaggag 600
gcctttgtga aaaacaacat attagcagat gacgtcccct gccacttggt gtcggctctt 660
atcgctggat tttgcgcaac agctatgtcc tccccggtgg atgtagtaaa aaccagattt 720
attaattctc caccaggaca gtacaaaagt gtgcccaact gtgcaatgaa agtgttcact 780
aacgaaggac caacggcttt cttcaagggg ttggtacctt ccttcttgcg acttggatcc 840
tggaacgtca ttatgtttgt gtgctttgaa caactgaaac gagaactgtc aaagtcaagg 900
cagactatgg actgtgccac ataa 924

<210> SEQ ID NO: 2
<211> LENGTH: 307
<212> TYPE: PRT
<213> ORGANISM: Homo sapiens
<400> SEQUENCE: 2

Met Gly Gly Leu Thr Ala Ser Asp Val His Pro Thr Leu Gly Val Gln
1 5 10 15
Leu Phe Ser Ala Gly Ile Ala Ala Cys Leu Ala Asp Val Ile Thr Phe
20 25 30
Pro Leu Asp Thr Ala Lys Val Arg Leu Gln Val Gln Gly Glu Cys Pro
35 40 45
Thr Ser Ser Val Ile Arg Tyr Lys Gly Val Leu Gly Thr Ile Thr Ala
50 55 60
Val Val Lys Thr Glu Gly Arg Met Lys Leu Tyr Ser Gly Leu Pro Ala
65 70 75 80
Gly Leu Gln Arg Gln Ile Ser Ser Ala Ser Leu Arg Ile Gly Leu Tyr

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PATENT APPLICATION: US/09/599,760 TIME: 18:57:37

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Asp Thr Val Gln Glu Phe Leu Thr Ala Gly Lys Glu Thr Ala Pro Ser
            100                 105                 110
Leu Gly Ser Lys Ile Leu Ala Gly Leu Thr Thr Gly Gly Val Ala Val
        115                 120                 125
Phe Ile Gly Gln Pro Thr Glu Val Val Lys Val Arg Leu Gln Ala Gln
    130                 135                 140
Ser His Leu His Gly Ile Lys Pro Arg Tyr Thr Gly Thr Tyr Asn Ala
145                 150                 155                 160
Tyr Arg Ile Ile Ala Thr Thr Glu Gly Leu Thr Gly Leu Trp Lys Gly
                165                 170                 175
Thr Thr Pro Asn Leu Met Arg Ser Val Ile Ile Asn Cys Thr Glu Leu
            180                 185                 190
Val Thr Tyr Asp Leu Met Lys Glu Ala Phe Val Lys Asn Asn Ile Leu
        195                 200                 205
Ala Asp Asp Val Pro Cys His Leu Val Ser Ala Leu Ile Ala Gly Phe
    210                 215                 220
Cys Ala Thr Ala Met Ser Ser Pro Val Asp Val Val Lys Thr Arg Phe
225                 230                 235                 240
Ile Asn Ser Pro Pro Gly Gln Tyr Lys Ser Val Pro Asn Cys Ala Met
                245                 250                 255
Lys Val Phe Thr Asn Glu Gly Pro Thr Ala Phe Phe Lys Gly Leu Val
            260                 265                 270
Pro Ser Phe Leu Arg Leu Gly Ser Trp Asn Val Ile Met Phe Val Cys
        275                 280                 285
Phe Glu Gln Leu Lys Arg Glu Leu Ser Lys Ser Arg Gln Thr Met Asp
    290                 295                 300
Cys Ala Thr
305
<210> SEQ ID NO: 3
<211> LENGTH: 1105
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<400> SEQUENCE: 3
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tcctgggacg tagcaggaaa tcagcatcat ggttgggttc aaggccacag atgtgccccc     120
tactgccact gtgaagtttc ttggggctgg cacagctgcc tgcatcgcag atctcatcac     180
ctttcctctg gatactgcta aagtccggtt acagatccaa ggagaaagtc aggggccagt     240
gcgcgctaca gccagcgccc agtaccgcgg tgtgatgggc accattctga ccatggtgcg     300
tactgagggc ccccgaagcc tctacaatgg gctggttgcc ggcctgcagc gccaaatgag     360
ctttgcctct gtccgcatcg gcctgtatga ttctgtcaaa cagttctaca ccaagggctc     420
tgagcatgcc agcattggga gccgcctcct agcaggcagc accacaggtg ccctggctgt     480
ggctgtggcc cagcccacgg atgtggtaaa ggtccgattc caagctcagg cccgggctgg     540
aggtggtcgg agataccaaa gcaccgtcaa tgcctacaag accattgccc gagaggaagg     600
gttccggggc ctctggaaag ggacctctcc caatgttgct cgtaatgcca ttgtcaactg     660
tgctgagctg gtgacctatg acctcatcaa ggatgccctc ctgaaagcca acctcatgac     720
agatgacctc ccttgccact tcacttctgc ctttggggca ggcttctgca ccactgtcat     780
cgcctccccc gtagacgtgg tcaagacgag atacatgaac tctgccctgg gccagtacag     840
tagcgctggc cactgtgccc ttaccatgct ccagaaggag gggccccgag ccttctacaa     900
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PATENT APPLICATION: US/09/599,760 TIME: 18:57:37

Input Set : A:\464428_1.txt
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agggttcatg ccctcctttc tccgcttggg ttcctggaac gtggtgatgt tcgtcaccta 960
tgagcagctg aaacgagccc tcatggctgc ctgcacttcc cgagaggctc ccttctgagc 1020
ctctcctgct gctgacctga tcacctctgg ctttgtctct agccgggcca tgctttcctt 1080
ttcttccttc tttctcttcc ctccg 1105

<210> SEQ ID NO: 4
<211> LENGTH: 309
<212> TYPE: PRT
<213> ORGANISM: Homo sapiens
<400> SEQUENCE: 4

Met Val Gly Phe Lys Ala Thr Asp Val Pro Pro Thr Ala Thr Val Lys
1 5 10 15
Phe Leu Gly Ala Gly Thr Ala Ala Cys Ile Ala Asp Leu Ile Thr Phe
20 25 30
Pro Leu Asp Thr Ala Lys Val Arg Leu Gln Ile Gln Gly Glu Ser Gln
35 40 45
Gly Pro Val Arg Ala Thr Ala Ser Ala Gln Tyr Arg Gly Val Met Gly
50 55 60
Thr Ile Leu Thr Met Val Arg Thr Glu Gly Pro Arg Ser Leu Tyr Asn
65 70 75 80
Gly Leu Val Ala Gly Leu Gln Arg Gln Met Ser Phe Ala Ser Val Arg
85 90 95
Ile Gly Leu Tyr Asp Ser Val Lys Gln Phe Tyr Thr Lys Gly Ser Glu
100 105 110
His Ala Ser Ile Gly Ser Arg Leu Leu Ala Gly Ser Thr Thr Gly Ala
115 120 125
Leu Ala Val Ala Val Ala Gln Pro Thr Asp Val Val Lys Val Arg Phe
130 135 140
Gln Ala Gln Ala Arg Ala Gly Gly Gly Arg Arg Tyr Gln Ser Thr Val
145 150 155 160
Asn Ala Tyr Lys Thr Ile Ala Arg Glu Glu Gly Phe Arg Gly Leu Trp
165 170 175
Lys Gly Thr Ser Pro Asn Val Ala Arg Asn Ala Ile Val Asn Cys Ala
180 185 190
Glu Leu Val Thr Tyr Asp Leu Ile Lys Asp Ala Leu Leu Lys Ala Asn
195 200 205
Leu Met Thr Asp Asp Leu Pro Cys His Phe Thr Ser Ala Phe Gly Ala
210 215 220
Gly Phe Cys Thr Thr Val Ile Ala Ser Pro Val Asp Val Val Lys Thr
225 230 235 240
Arg Tyr Met Asn Ser Ala Leu Gly Gln Tyr Ser Ser Ala Gly His Cys
245 250 255
Ala Leu Thr Met Leu Gln Lys Glu Gly Pro Arg Ala Phe Tyr Lys Gly
260 265 270
Phe Met Pro Ser Phe Leu Arg Leu Gly Ser Trp Asn Val Val Met Phe
275 280 285
Val Thr Tyr Glu Gln Leu Lys Arg Ala Leu Met Ala Ala Cys Thr Ser
290 295 300
Arg Glu Ala Pro Phe
305

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PATENT APPLICATION: US/09/599,760 TIME: 18:57:37

Input Set : A:\464428_1.txt
Output Set: N:\CRF3\07052000\I599760.raw

<210> SEQ ID NO: 5
<211> LENGTH: 1132
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<400> SEQUENCE: 5
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ccaccgctgc actgaagccc agggctgtgg agcagcctct ctccttggac ctcctctcgg 120
ccctaaaggg actgggcaga gccttccagg actatggttg gactgaagcc ttcagacgtg 180
cctcccacca tggctgtgaa gttcctgggg gcaggcacag cagcctgttt tgctgacctc 240
gttacctttc cactggacac agccaaggtc cgcctgcaga tccaggggga gaaccaggcg 300
gtccagacgg cccggctcgt gcagtaccgt ggcgtgctgg gcaccatcct gaccatggtg 360
cggactgagg gtccctgcag cccctacaat gggctggtgg ccggcctgca gcgccagatg 420
agcttcgcct ccatccgcat cggcctctat gactccgtca agcaggtgta caccccaaa 480
ggcgcggaca actccagcct cactacccgg attttggccg gctgcaccac aggagccatg 540
gcggtgacct gtgcccagcc cacagatgtg gtgaaggtcc gatttcaggc cagcatacac 600
ctcgggccat ccaggagcga cagaaaatac agcgggacta tggacgccta cagaaccatc 660
gccagggagg aaggagtcag gggcctgtgg aaaggaactt tgcccaacat catgaggaat 720
gctatcgtca actgtgctga ggtggtgacc tacgacatcc tcaaggagaa gctgctggac 780
taccacctgc tcactgacaa cttcccctgc cactttgtct ctgcctttgg agccggcttc 840
tgtgccacag tggtggcctc cccggtggac gtggtgaaga cccggtatat gaactcacct 900
ccaggccagt acttcagccc cctcgactgt atgataaaga tggtggccca ggagggcccc 960
acagccttct acaaggggtg agcctcctcc tgcctccagc actccctccc agagaacagg 1020
ggcttctttc ttttcgaatg tggctaccgt gggtcaacct gggatgtagc ggtgaagagt 1080
acagatgtaa atgccacaaa gaagaagttt aaaaaaccat gcaaaaaaaa aa 1132
<210> SEQ ID NO: 6
<211> LENGTH: 275
<212> TYPE: PRT
<213> ORGANISM: Homo sapiens
<400> SEQUENCE: 6
Met Val Gly Leu Lys Pro Ser Asp Val Pro Pro Thr Met Ala Val Lys
1 5 10 15
Phe Leu Gly Ala Gly Thr Ala Ala Cys Phe Ala Asp Leu Val Thr Phe
20 25 30
Pro Leu Asp Thr Ala Lys Val Arg Leu Gln Ile Gln Gly Glu Asn Gln
35 40 45
Ala Val Gln Thr Ala Arg Leu Val Gln Tyr Arg Gly Val Leu Gly Thr
50 55 60
Ile Leu Thr Met Val Arg Thr Glu Gly Pro Cys Ser Pro Tyr Asn Gly
65 70 75 80
Leu Val Ala Gly Leu Gln Arg Gln Met Ser Phe Ala Ser Ile Arg Ile
85 90 95
Gly Leu Tyr Asp Ser Val Lys Gln Val Tyr Thr Pro Lys Gly Ala Asp
100 105 110
Asn Ser Ser Leu Thr Thr Arg Ile Leu Ala Gly Cys Thr Thr Gly Ala
115 120 125
Met Ala Val Thr Cys Ala Gln Pro Thr Asp Val Val Lys Val Arg Phe
130 135 140
Gln Ala Ser Ile His Leu Gly Pro Ser Arg Ser Asp Arg Lys Tyr Ser
145 150 155 160

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Output Set: N:\CRF3\07052000\I599760.raw

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214  Gly Thr Met Asp Ala Tyr Arg Thr Ile Ala Arg Glu Glu Gly Val Arg
215                  165                 170                 175
216  Gly Leu Trp Lys Gly Thr Leu Pro Asn Ile Met Arg Asn Ala Ile Val
217              180                 185                 190
218  Asn Cys Ala Glu Val Val Thr Tyr Asp Ile Leu Lys Glu Lys Leu Leu
219          195                 200                 205
220  Asp Tyr His Leu Leu Thr Asp Asn Phe Pro Cys His Phe Val Ser Ala
221      210                 215                 220
222  Phe Gly Ala Gly Phe Cys Ala Thr Val Val Ala Ser Pro Val Asp Val
223  225                 230                 235                 240
224  Val Lys Thr Arg Tyr Met Asn Ser Pro Pro Gly Gln Tyr Phe Ser Pro
225                  245                 250                 255
226  Leu Asp Cys Met Ile Lys Met Val Ala Gln Glu Gly Pro Thr Ala Phe
227              260                 265                 270
228  Tyr Lys Gly
229          275
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VERIFICATION SUMMARY DATE: 07/05/2000
PATENT APPLICATION: US/09/599,760 TIME: 18:57:38

Input Set : A:\464428_1.txt
Output Set: N:\CRF3\07052000\I599760.raw

L:12 M:270 C: Current Application Number differs, Replaced Current Application No
L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date